

**AMENDMENTS TO THE SPECIFICATION:**

Please replace the original specification with the attached substitute specification. Also attached is a marked-up copy of the original specification showing changes that have been made in the substitute specification.

Please replace the abstract with the following amended abstract:

~~The invention relates to a~~ A method and a device for the automatic determination of selected physical and colloidal chemistry parameters ~~(for example, the grain size, the distribution of grain sizes, the hindrance function and indices of structural stability)~~ by determining ~~means of the determination of~~ the attenuation of radiated waves through monodisperse or polydisperse dispersion samples subjected to gravitation or centrifugation, ~~characterised in that~~ wherein during the segregation by means of centrifugation or gravitation, the instantaneous transmission  $I_T(t, r)$  ~~characterising~~ characterizing the current segregation status of the waves radiated with the intensity  $I_o(t, r)$  and/or the instantaneous scattering  $I_S(t, r)$  as a function of the position within the samples is repeatedly determined and recorded at high resolution at any arbitrary time for one or more wavelengths over the entire length of the sample or in selected partial sections of it, simultaneously for multiple and even concentrated samples with known and/or unknown physical and colloidal chemistry properties.